

Patent number: JP57168117
Publication date: 1982-10-16
Inventor: HAMADA YASUYOSHI
Applicant: HITACHI SEISAKUSHO KK
Classification:
- international: G01F23/22
- european:
Application number: JP19810053206 19810410
Priority number(s):

PURPOSE: To perform multipoint liquid level detection by using thermistors of $(N-1)+2$ which are fewer than the conventional number, by combining the two temperature compensating thermistors and the thermistors of $N-1$ with respect to the number of the liquid levels N to be detected.

CONSTITUTION: The temperature compensating thermistor 2a is connected in series with the liquid level detecting thermistors 2b-2d (in this case, the number of liquid levels is 3), and arranged in a container 1 by which the liquid levels are detected. the temperature compensating thermistor 2e is arranged in said container 1. said thermistors 2a and 2e are provided at the positions so that they are not contacted with the liquid. The thermistor 2e is connected to a power source V_{cc} through a resistor 3 for improving the linearity of resistance variation due to temperature variation. A comparing signal V_{refin} is formed by the thermistor 2e, the resistor 3, and a variable resistor 6 and a resistor 4 which are connected to the resistor 3 in series. A comparing signals V_{ref1-4} corresponding to the liquid levels are formed by variable resistors 7-10. Meanwhile an output signal V_{out} is taken out of the connecting point between the thermistors 2a and 2b. The difference between the V_{out} and V_{ref1-4} are inputted to a comparator 14, and the liquid levels are detected.

